

REMARKS

The specification has been amended to avoid any confusion as to the identification of polyisobutene oil. Because persons working in the field of adhesives (where the oil is primarily used) refer to it as "polybutene oil", and even the manufacturer refers to it as such, the term was used in the specification, consistent with such familiar use. At the time the specification was written, this seemed eminently reasonable since persons skilled in the art were well aware that poly(1-butene) is available only as a solid, and is of no interest in the adhesives field. However, upon re-reading the specification in light of the invention being directed to a blend which is not an adhesive, and doing so after more than one year, it seemed that it would be less confusing to use the correct identification of "polyisobutene" (more convenient than polyisobutylene). As stated in the appended declaration of the inventor, the inapt use of the term was inadvertent.

The typographical error in Table 2 has been corrected.

Basis for "liquid" in line 5 of claim 1 is found in the specification at pg 15, lines 10-11 where it states "and the SBS is blended with a liquid polybutene having a major molar proportion of isobutene repeating units relative to the butene repeating units, preferably all isobutene units, the polybutene having Mn in the range from about 1000 to 4000;"

Basis for "having a number average molecular weight ("Mn") in the range from about 200 to 6000," in line 6 of claim 1 is found in the specification starting at pg 14, line 31 where it states "liquid polyisobutene oil having Mn in the range from about 200 to 6000;"

Basis for "Shore A 40 to 80" in line 12 of claim 1 is found in the specification starting at pg 10, line 16.

Basis for "Shore A hardness in the range from 30 to 100," in claim 1 at line 15 is found in the specification at pg 10, line 13 where it states "(ii) a TPV having a Shore A 30 - 100 hardness,"

The denial of the filing date of the Provisional Application is respectfully traversed.

The stated basis for denial of the filing date, that the provisional parent case is only a few pages long, is not a basis for denial of the filing date. That the provisional “fails to disclose virtually all of the ranges present in the claims” is not a basis for denial of the filing date, and this statement is not substantiated. The ranges set forth in the summary in the provisional application correspond in scope to the disclosure of the utility application. In addition, the provisional specifies three examples of blends A, B and C with the following ingredients: Kraton G 1651 which is a styrene-ethylene-butene-styrene block copolymer having a number average molecular weight Mn of about 290,000; Panalene H1500 which is a polyisobutene oil having Mn of about 2000; Montell PP PD702 which is polypropylene having a melt index of 35; Dow Corning 200 silicone oil (350 cts) which is used as a detackifier; Irganox 1010 antioxidant; and, Kemamide S saturated fatty primary monoamide derived from stearic acid, used as a mold release agent.

The Table 1 given in the provisional application is presented below with the amounts of each of the ingredients given in % (as originally written) and in phr.

Table 1

Ingredient	Blend A		Blend B		Blend C	
	%	phr	%	phr	%	phr
Kraton G 1651	20	100	40	100	60	100
Panalene H1500	55	275	50	125	15	25
Montell PP PD702	20	100	7.9	19.75	16	26.67
Dow Corning 200	2.40	12	0.1	0.25	7.	11.67
Irganox 1010	0.5	2.5	1.	2.5	1.	1.67
Kemamide S	0.1	0.5	1.	2.5	1.	1.67

The above examples use the ingredients in amounts within the ranges specified in the specification and claims of the utility application. In simple terms, though the **new matter** in the utility application is not entitled to the filing date of the provisional application, the

examples provided in the provisional, which were the examples of blends made at that time, and the scope of the disclosure of the provisional, correspond to the scope of the disclosure and claims of the utility application. Therefore, to the extent that the utility application discloses an invention having a scope comparable to that of the disclosure in the provisional, the utility application is entitled to the date of the provisional.

The rejection of claims 1 - 23 for indefiniteness under the second paragraph of 35 U.S.C. §112, on the grounds that the claims fail to particularly point out and distinctly claim the subject matter which applicant regards as his invention, is respectfully traversed.

The term "lower" has been defined as set forth in dependent claim 3, *inter alia*. The specification has been amended accordingly at page 4, line 5.

Note that the specification defines "higher alkenes having from 5 to about 8 carbon atoms ("poly(higher)alkenes")," (see page 5, lines 18-19) so that it is clear that lower alkenes must have less than 5 carbon atoms.

The term "detackifier" is a generic term having a descriptive significance in a sense coextensive with or parallel to that of terms such as filler, stabilizer, processing aid, antiblocking agent, antistatic agent, wax, foaming agent, pigment and flame retardant. One skilled in the art would know that a detackifier is a material which fails to contribute a Tg to the detackified blend, and are typically chosen from oils, fatty acid amides, Waxes, metal stearates, talc and the like which would be specially adapted for use under the circumstances where a blend has all the desirable physical characteristics but is a little too tacky. If the term "detackifier" is not art recognized, then it is indeed strange that searching under the term "detackifier" under the code "spec/detackifier" turns up 199 U.S. patent references since 1976.

The term "light-permeable" is defined in the specification to mean transparent enough so as to be able to read a legend inscribed under the product. (see page 15, lines 15-16). The dictionary meaning of "permeable" is "capable of being penetrated"; thus, when light enters into and permeates an object the object is deemed "transparent" in the usual sense of the

word. The term is well-understood, as attested to by searching under the term “light-permeable” under the code spec/“light-permeable”. The search turns up 854 U.S. patent references since 1976. Searching under the code spec/“light permeable” turns up 1392 U.S. patent references since 1976.

The title has been amended as suggested by the Examiner; any suggestion for a better title will be appreciated.

The rejection of claims 1 - 7, 9, 10 and 15 - 24 under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Baranowski et al (WO 02/14171) is respectfully traversed.

Re: Rejection for Anticipation

The statute 35 U.S.C. §102 calls for identical disclosure or description between the subject matter sought to be patented and the prior art. Reliance upon 35 U.S.C. §102 for a rejection calls for identical disclosure or description between the subject matter sought to be patented and the prior art.

If for no other reason, a comparison of the invention claimed herein and the subject matter disclosed by Baranowski et al, it must be conceded that Raspanti does not anticipate the applicants' compounds. Courts have found identity when a single prior art reference clearly and unequivocally discloses the claimed compound without any need for picking, choosing, and combining various disclosures not directly related to each other by the teachings of the cited reference. (See *In re Arkley et al*, 172 USPQ 524, 525-6 CCPA 1972). Therefore the rejection under 35 U.S.C. §102(e) must be withdrawn.

Even if the office action deems the differences in the claimed subject matter are minor relative to the disclosure of the Baranowski et al reference, the strictness of the test for a rejection for anticipation requires that it be withdrawn. The strictness of this test was emphasized in *Connel v. Sears, Roebuck & Co.*, 722 F.2d 1542, 220 USPQ 193 (1983) reversing the lower court when the CAFC held "that it is insufficient for an anticipation if the general aspects are the same and the differences in minor matters is only such as would

suggest itself to one of ordinary skill in the art." (at pg 198).

Re: Obviousness

The position of the office action, that the claimed product is *prima facie* obviousness, is not supported by the cited reference. The reference discloses **an oil-free blend** made by blending (i) a commercially available generic TPE identified as Trefsin and Santoprene; (ii) a SEBS block copolymer identified as Kraton-G (1652, and 2705); (iii) butyl rubber which is generically polyisobutylene rubber identified as being commercially available from Exxon; (iv) a solid polyolefin, specifically polyisobutene identified as PB 0400 having a melt index of about 12 which corresponds to a Mn of greater than 20,000; and a microcrystalline wax. Polyisobutylene ("butyl") rubbers are high molecular weight solids, and they are available from Exxon in the range of Mooney viscosity ML(1+8) from 32 to 57. They are all solids - not an oily liquid. Butyl rubber (GR-I) which is a copolymer of about 98% isobutene with a small proportion (2%) of isoprene or butadiene, (see The Condensed Chemical Dictionary, Reinhold Publishing) is well known for its impermeability to gas. However, it is difficult to process in an extruder or Banbury.

In sharp contrast, applicant uses only low molecular weight polyisobutylene and copolymers of polyisobutene and butene (minor proportion) which are oily liquids, and only effective in the molecular weight range claimed.

Because Baranowski et al found a blend of solid ingredients which do not require to be plasticized under (the unstated) conditions used to process their blend, Baranowski et al specifically eschew using oil in their "oil-free" blend. This was their goal as stated in their specification, because "extractable compounds from the mineral oil have also been known to exhibit an odor and/or affect the taste of the food product." (See page 3, lines 32-34).

In view of Baranowski et al's specific teaching that their blend is to be oil-free, doing just the opposite, that is, making a blend with an oily liquid which is required to be polyisobutylene in a defined molecular weight range, cannot be obvious. One reading the disclosure's emphasis on "oil-free" will not deliberately go out and add an oily liquid to a blend which, at least superficially, bears a resemblance to the disclosed blend.

Note that Baranowski specified particular commercially available ingredients for their

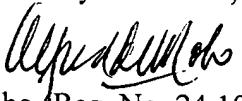
blend but gave no further details about the ingredients they found operable, or the ranges in which those ingredients are operable, or the equipment and conditions under which they could be processed in an extruder or other equipment. Even the lone example provided, in which they made the blend they tested, does not state how the ingredients are blended (presumably in an extruder), nor does it provide enough details for one skilled in the art to duplicate their blend without an undue amount of experimentation. Making a processable blend in commercial equipment would only possible be with trial and error amounting to an undue amount of experimentation.

To the extent that the general disclosure teaches what might eventually lead to a blend which is processable, that is, the ingredients can be blended into an essentially homogeneous blend in an extruder, Banbury, or other mixing device found to be able to accomplish the task, it is still left to determine whether that blend may be further processable into a usable cork or cap liner. Baranowski et al evidently found that they could make a processable blend, but with ingredients they fail to identify sufficiently for one to use the same ones; and, under conditions which they do not disclose; and, in equipment they do not identify; and, they provide no physical data on the blend they made and used. The unique feature of their blend is that it is "oil-free". To make their blend they require solid (high molecular weight), oil-free polyisobutylene. The claimed blend requires polyisobutene oil, or it cannot be formed into a usable cork or cap liner.

Simply put, contrary to the teachings of the reference, applicant has found that when he uses polyisobutylene oil in a particular molecular weight range, he can make a blend with requisite processability, required physical properties, and excellent resistance to oxygen permeability.

In view of the foregoing remarks, arguments, and amendments to the specification and the claims, it is respectfully submitted that the basis for the rejections have been overcome and that the claims are in condition for allowance.

Respectfully submitted,


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